



SEQUENCE LISTING

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<120> NON-IDENTICAL GENES AND THEIR APPLICATION IN IMPROVED MOLECULAR
ADJUVANTS

<130> 37945-0008

<140> US 09/582,761

<141> 2000-08-28

<150> PCT/GB98/03918

<151> 1998-12-30

<150> GB 9727512.7

<151> 1997-12-31

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<170> PatentIn version 3.0

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Gly Met Thr Pro Thr Val Ile Ala Val His Tyr Leu Asp Gln Thr Glu
 20 25 30

Gln Trp Glu Lys Phe Gly Ile Glu Lys Arg Gln Glu Ala Leu Glu Leu
 35 40 45

Ile Lys Lys Gly Tyr Thr Gln Gln Leu Ala Phe Lys Gln Pro Ser Ser
 50 55 60

Ala Tyr Ala Ala Phe Asn Asn Arg Pro Pro Ser Thr Trp Leu Thr Ala
 65 70 75 80

Tyr Val Val Lys Val Phe Ser Leu Ala Ala Gln Leu Ile Ala Ile Asp
 85 90 95

Ser His Val Leu Cys Gly Ala Val Lys Trp Leu Ile Leu Glu Lys Gln
 100 105 110

Lys Pro Asp Gly Val Phe Gln Glu Asp Gly Pro Val Ile His Gln Glu
 115 120 125

Met Ile Gly Gly Phe Arg Asn Ala Lys Glu Ala Asp Val Ser Leu Thr
 130 135 140

Ala Phe Val Leu Ile Ala Leu Gln Glu Ala Arg Asp Ile Cys Glu Gly
 145 150 155 160
 Gln Val Asn Ser Leu Pro Gly Ser Ile Asn Lys Ala Gly Glu Tyr Ile
 165 170 175
 Glu Ala Ser Tyr Met Asn Leu Gln Arg Pro Tyr Thr Val Ala Ile Ala
 180 185 190
 Gly Tyr Ala Leu Ala Leu Met Asn Lys Leu Glu Glu Pro Tyr Leu Gly
 195 200 205
 Lys Phe Leu Asn Thr Ala Lys Asp Arg Asn Arg Trp Glu Glu Pro Asp
 210 215 220
 Gln Gln Leu Tyr Asn Val Glu Ala Thr Ser Tyr Ala Leu Leu Ala Leu
 225 230 235 240
 Leu Leu Leu Lys Asp Phe Asp Ser Val Pro Pro Val Val Arg Trp Leu
 245 250 255
 Asn Glu Gln Arg Tyr Tyr Gly Gly Gly Tyr Gly Ser Thr Gln Ala Thr
 260 265 270
 Phe Met Val Phe Gln Ala Leu Ala Gln Tyr Gln Thr Asp Val Pro Asp
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 35 40 45
 Ile Lys Lys Gly Tyr Thr Gln Gln Leu Ala Phe Lys Gln Pro Ser Ser
 50 55 60
 Ala Tyr Ala Ala Phe Asn Asn Arg Pro Pro Ser Thr Trp Leu Thr Ala
 65 70 75 80
 Tyr Val Val Lys Val Phe Ser Leu Ala Ala Gln Leu Ile Ala Ile Asp
 85 90 95

Ser His Val Leu Cys Gly Ala Val Lys Trp Leu Ile Leu Glu Lys Gln
 100 105 110
 Lys Pro Asp Gly Val Phe Gln Glu Asp Gly Pro Val Ile His Gln Glu
 115 120 125
 Met Ile Gly Gly Phe Arg Asn Ala Lys Glu Ala Asp Val Ser Leu Thr
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 Ala Phe Val Leu Ile Ala Leu Gln Glu Ala Arg Asp Ile Cys Glu Gly
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 Gln Val Asn Ser Leu Pro Gly Ser Ile Asn Lys Ala Gly Glu Tyr Ile
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 Glu Ala Ser Tyr Met Asn Leu Gln Arg Pro Tyr Thr Val Ala Ile Ala
 180 185 190
 Gly Tyr Ala Leu Ala Leu Met Asn Lys Leu Glu Glu Pro Tyr Leu Gly
 195 200 205
 Lys Phe Leu Asn Thr Ala Lys Asp Arg Asn Arg Trp Glu Glu Pro Asp
 210 215 220
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 225 230 235 240
 Leu Leu Leu Lys Asp Phe Asp Ser Val Pro Pro Val Val Arg Trp Leu
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 Asn Glu Gln Arg Tyr Tyr Gly Gly Gly Tyr Gly Ser Thr Gln Ala Thr
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 275 280 285
 His Asp Leu Asn Met Asp Val Ser Phe His Leu Pro Ser Ser Gly Ser
 290 295 300
 Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Ser Thr Pro Ala Gly
 305 310 315 320
 Ser Gly Glu Gln Asn Met Ile Gly Met Thr Pro Thr Val Ile Ala Val
 325 330 335
 His Tyr Leu Asp Gln Thr Glu Gln Trp Glu Lys Phe Gly Ile Glu Lys
 340 345 350
 Arg Gln Glu Ala Leu Glu Leu Ile Lys Lys Gly Tyr Thr Gln Gln Leu
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 Ala Phe Lys Gln Pro Ser Ser Ala Tyr Ala Ala Phe Asn Asn Arg Pro
 370 375 380
 Pro Ser Thr Trp Leu Thr Ala Tyr Val Val Lys Val Phe Ser Leu Ala
 385 390 395 400
 Ala Gln Leu Ile Ala Ile Asp Ser His Val Leu Cys Gly Ala Val Lys
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 Gly Pro Val Ile His Gln Glu Met Ile Gly Gly Phe Arg Asn Ala Lys
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 Glu Ala Asp Val Ser Leu Thr Ala Phe Val Leu Ile Ala Leu Gln Glu
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 Ala Arg Asp Ile Cys Glu Gly Gln Val Asn Ser Leu Pro Gly Ser Ile
 465 470 475 480
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 485 490 495
 Pro Tyr Thr Val Ala Ile Ala Gly Tyr Ala Leu Ala Leu Met Asn Lys
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 Leu Glu Glu Pro Tyr Leu Gly Lys Phe Leu Asn Thr Ala Lys Asp Arg
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 Asn Arg Trp Glu Glu Pro Asp Gln Gln Leu Tyr Asn Val Glu Ala Thr
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 Ser Tyr Ala Leu Leu Ala Leu Leu Leu Lys Asp Phe Asp Ser Val
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 Pro Pro Val Val Arg Trp Leu Asn Glu Gln Arg Tyr Tyr Gly Gly Gly
 565 570 575
 Tyr Gly Ser Thr Gln Ala Thr Phe Met Val Phe Gln Ala Leu Ala Gln
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 Tyr Gln Thr Asp Val Pro Asp His Asp Leu Asn Met Asp Val Ser Phe
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 His Leu Pro Ser Ser Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
 610 615 620
 Ser Gly Ser Thr Pro Ala Gly Ser Gly Glu Gln Asn Met Ile Gly Met
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 Thr Pro Thr Val Ile Ala Val His Tyr Leu Asp Gln Thr Glu Gln Trp
 645 650 655
 Glu Lys Phe Gly Ile Glu Lys Arg Gln Glu Ala Leu Glu Leu Ile Lys
 660 665 670
 Lys Gly Tyr Thr Gln Gln Leu Ala Phe Lys Gln Pro Ser Ser Ala Tyr
 675 680 685
 Ala Ala Phe Asn Asn Arg Pro Pro Ser Thr Trp Leu Thr Ala Tyr Val
 690 695 700
 Val Lys Val Phe Ser Leu Ala Ala Gln Leu Ile Ala Ile Asp Ser His
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 Val Leu Cys Gly Ala Val Lys Trp Leu Ile Leu Glu Lys Gln Lys Pro
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Asp Gly Val Phe Gln Glu Asp Gly Pro Val Ile His Gln Glu Met Ile
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 Val Leu Ile Ala Leu Gln Glu Ala Arg Asp Ile Cys Glu Gly Gln Val
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 Ser Tyr Met Asn Leu Gln Arg Pro Tyr Thr Val Ala Ile Ala Gly Tyr
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 850 855 860
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 Gln Arg Tyr Tyr Gly Gly Gly Tyr Gly Ser Thr Gln Ala Thr Phe Met
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gtgtagataa ctacgatacg ggaggggctta ccatctggcc ccagtgtctgc aatgataccg 180
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35 40 45
His Tyr Leu Asp Gln Thr Glu Gln Trp Glu Lys Phe Gly Ile Glu Lys
50 55 60
Arg Gln Glu Ala Leu Glu Leu Ile Lys Lys Gly Tyr Thr Gln Gln Leu
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Ala Phe Lys Gln Pro Ser Ser Ala Tyr Ala Ala Phe Asn Asn Arg Pro
85 90 95
Pro Ser Thr Trp Leu Thr Ala Tyr Val Val Lys Val Phe Ser Leu Ala
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Ala Gln Leu Ile Ala Ile Asp Ser His Val Leu Cys Gly Ala Val Lys
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Gly Pro Val Ile His Gln Glu Met Ile Gly Gly Phe Arg Asn Ala Lys
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Glu Ala Asp Val Ser Leu Thr Ala Phe Val Leu Ile Ala Leu Gln Glu
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Ala Arg Asp Ile Cys Glu Gly Gln Val Asn Ser Leu Pro Gly Ser Ile
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 Pro Tyr Thr Val Ala Ile Ala Gly Tyr Ala Leu Ala Leu Met Asn Lys
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 Asn Arg Trp Glu Glu Pro Asp Gln Gln Leu Tyr Asn Val Glu Ala Thr
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 Ser Tyr Ala Leu Leu Ala Leu Leu Leu Lys Asp Phe Asp Ser Val
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 Pro Pro Val Val Arg Trp Leu Asn Glu Gln Arg Tyr Tyr Gly Gly Gly
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36